RESPONSE

The claims are corrected to provide the proper status identifier now required under U.S. Patent practice. The cancelled claims are removed. The requirements for the nucleotide and/or amino acid sequences 37 CFR 1.821(a)(1) and (a)(2) are submitted herewith along with a computerized sequence listing on diskette. The sequence ID numbers are added by amendment.

The Examiner has raised a variety of rejections based on § 112, and rejections under § 102 based on the asserted content of various prior art references. Each such rejection is addressed in turn.

1. The § 112 rejection regarding the use of the "transgenic" and the state of the art relating to transgenic chickens is traversed by the present amended claims. Although there is some variation in the use of the terms by those of ordinary skill in the art, to clarify the subject matter of the present claims, Applicants have amended the claims to recite a "chimeric" chicken to distinguish from birds that are comprised of genetic modifications that are demonstrably carried through the germline to fully transgenic offspring.

2. Claim 19 is cancelled without prejudice to remove the § 112 issue surrounding the recitation of a B cell specific regulatory region.

3. With respect to the issue of the ability to stably transfect avian embryonic stem cells over time such that a knockout transgenic chicken could be made, the amendments to the claims to recite a chimeric chicken traverses this rejection. The ability to stably transfect avian embryonic stem cells over a period of time to make a chimeric chicken is disclosed in applicant's issued U.S. Patent No. 7,145,057 and the enabling portions of that disclosure are contained in the present specification.

4. With respect to the rejection of the claims for requiring undue experimentation, the Examiner has cited U.S. Patent No. 7,129,084 under Section 102(b) against the pending claims. The

'084 patent contains little or no information suggesting that the construct of the chimeric chicken as is now claimed has been enabled. The PTO cannot simultaneously grant that patent, having literally no enabling disclosure for the chicken recited by the present claims, use that patent as a reference in an anticipation rejection against Applicants, but then allege that Applicants' disclosure which is far more detailed and specific, lacks enablement under § 112.

5. The indefiniteness rejection of claim 10 is based on a typographical error that has been corrected.

6. The use of the phrase "pseudo" in claim 15 is consistent with the use of the term "pseudo gene" in the prior art. It is believed to be unmistakable that such terminology is readily appreciated by one of ordinary skill in the art. If necessary, Applicants will provide independent evidence to that effect.

7. Similarly, the difference between rearrangement and class switching is well recognized in the field of immunoglobulin gene rearrangement as evidenced by the '084 patent the Examiner cites. This language is obviously readily appreciated by one of ordinary skill in the art.

8. The structure of isotype G immunoglobulin molecules is readily determined by any of a number of techniques and B cells expressing such molecules are readily identified.

9. The rejection to claim 19 is rendered moot by the cancellation of the claim.

10. With respect to the rejection of Etches et al., U.S. Patent No. 6,861,572, the present claims require that the chimeric chicken have "a transgene stably integrated into the genome of the chicken..." This does not exist in the Etches '572 patent.

11. The Rapp U.S. Patent Publication No. 2002/0108132-A12002 reference does not anticipate the pending claims. The present claims require "a population of B lymphocytes ... comprised of a human immunoglobulin locus ..." Rapp is directed to expression of a monoclonal antibody in a chicken and does not feature an animal having a population of B lymphocytes with a

human immunoglobulin locus.

12. With respect to the rejection over Singh, U.S. Patent Publication No. 2002/0028488, the Singh publication is a noted farce. Singh has simply copied an issued United States patent to Kucherlapati, which is directed to expression of immunoglobulins in transgenic mice, and simply re-titled the application to apply to a transgenic chicken and then written in the word "chicken" where mouse mold have appeared. Comparison of the Kucherlapati issued patents, which are noted by the Examiner at the outset of the Office Action, clearly shows that Singh et al. is conspicuously non-enabling for the subject matter of the present claims. The specific gene modifications and restriction sites, etc., and essentially all functional portions of the Singh et al publication are directed to the mouse genome, not the chicken genome. There is no possibility that the Singh et al. application can be an enabling disclosure on a competent reference under § 102 to the present application.

Therefore, none of the prior art references anticipates the present claims.

The Commissioner is also authorized to $510.00 for the two month extension fee to Orrick Herrington & Sutcliffe's Deposit Account No. **150665** and charge any fees required by the filing of this papers, and to credit any overpayment to Orrick Herrington & Sutcliffe's Deposit Account No. **150665.**

Respectfully submitted,

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